

“Guidance for Safety Aspects of Proposed Hydrogen Projects” describes the requirement and serves as a resource for safety plans required for DOE projects. This checklist is a summary of desired elements for those safety plans. The checklist is intended to help project teams verify that their safety plan is complete and can be a valuable tool over the life of the project.

Element	The Safety Plan Should Describe
<b>Scope of Work</b>	<ul style="list-style-type: none"> <li>Nature of the work being performed</li> </ul>
<b>Organizational Hydrogen Experience</b>	<ul style="list-style-type: none"> <li>How previous organizational experience with hydrogen is applied to this project</li> </ul>
<b>Organizational Policies and Procedures</b>	<ul style="list-style-type: none"> <li>Application of organizational safety-related policies and procedures to the work being performed</li> </ul>
<b>Identification of Safety Vulnerabilities (ISV)</b>	<ul style="list-style-type: none"> <li>What is the ISV methodology applied to this project, such as FMEA, What If, HAZOP, Checklist, Fault Tree, Event Tree, Probabilistic Risk Assessment, or other method</li> <li>Who leads and stewards the use of the ISV methodology</li> <li>Significant accident scenarios identified</li> <li>Significant vulnerabilities identified</li> <li>Safety critical equipment</li> </ul>
<b>Risk Reduction Plan</b>	<ul style="list-style-type: none"> <li>Prevention and mitigation measures for significant vulnerabilities</li> </ul>
<b>Standard Operating Procedures</b>	<ul style="list-style-type: none"> <li>Operational procedures applicable for the location and performance of the work</li> <li>Procedures that need to be written for the particular project</li> </ul>
<b>Safety Performance</b>	<ul style="list-style-type: none"> <li>How safety performance will be measured and monitored</li> </ul>
<b>Management of Change Procedures</b>	<ul style="list-style-type: none"> <li>The system and/or procedures used to review proposed changes to materials, technology, equipment, procedures, personnel and facility operation for their effect on safety vulnerabilities</li> </ul>

Element	The Safety Plan Should Describe
<b>Employee Training</b>	<ul style="list-style-type: none"> <li>• Required general safety training; initial and refresher</li> <li>• Hydrogen-specific training, initial and refresher</li> <li>• How the organization stewards training participation and verifies understanding</li> </ul>
<b>Mechanical Integrity</b>	<ul style="list-style-type: none"> <li>• Initial testing and commissioning</li> <li>• Preventative maintenance plan</li> <li>• Calibration of sensors</li> <li>• Test/inspection frequency basis</li> <li>• Documentation</li> </ul>
<b>Safety Reviews</b>	<ul style="list-style-type: none"> <li>• Applicable safety reviews beyond the ISV described above</li> </ul>
<b>Safety Information</b>	<ul style="list-style-type: none"> <li>• How needed safety information is communicated and made available to all project participants, including partners. Safety information includes the ISV documentation, procedures, references such as handbooks and standards, and safety review reports.</li> </ul>
<b>Safety Events</b>	<ul style="list-style-type: none"> <li>• The reporting procedure within the organization and to DOE</li> <li>• The system and/or procedure used to investigate events</li> <li>• How corrective measures will be implemented</li> <li>• How lessons learned from incidents and near-misses are documented and disseminated</li> </ul>
<b>Emergency Response</b>	<ul style="list-style-type: none"> <li>• The plan/procedures for responses to emergencies</li> <li>• Communication and interaction with local emergency response officials</li> </ul>
<b>Self-Audits</b>	<ul style="list-style-type: none"> <li>• How the project will verify that safety related procedures and practices are being followed throughout the life of the project</li> </ul>